## Index of Claims



Application/Control No.

Examiner

Applicant(s)/Patent under Reexamination

00

Art Unit

| V   | Rejected |
|-----|----------|
| 11. | Allowed  |

\_\_\_\_(Through numeral) Cancelled

Restricted

| Z | Non-Elected  |
|---|--------------|
| _ | Interference |

| А | Appeal   |
|---|----------|
| o | Objected |

|   |                                                  |              | <u> </u> | _                                            |          |                                              | D-1            | ,<br>        |              | _                                                |                 |   |          |          |          | _ |          |              | N - 4 |          |              |              |          |                                              |
|---|--------------------------------------------------|--------------|----------|----------------------------------------------|----------|----------------------------------------------|----------------|--------------|--------------|--------------------------------------------------|-----------------|---|----------|----------|----------|---|----------|--------------|-------|----------|--------------|--------------|----------|----------------------------------------------|
|   | - Cla                                            | im)          |          | _                                            | т—       | <br> -                                       | Date           | e<br>T       |              |                                                  | ᅴ               |   | Cla      | aim      | <u> </u> |   |          | [            | Date  | _        | _            | _            | _        | C                                            |
| - | Final                                            | Original     |          |                                              |          |                                              |                | ٠.           |              |                                                  | -               |   | Finæ     | Original |          |   |          |              |       |          |              |              |          | Final                                        |
|   |                                                  | 1            | <u> </u> | ├                                            | ├        | ┝                                            | -              | ╟            | $\vdash$     | ├                                                | $\vdash$        | i |          | 51       |          |   | -        |              |       | -        |              | <u> </u>     | -        | ł ├─                                         |
|   | <u></u>                                          | 2            | $\vdash$ | $\vdash$                                     | ⊢        | -                                            | $\vdash$       |              |              | ┝                                                | $\vdash$        |   |          | 52       | $\dashv$ |   |          | H            |       |          |              | <del> </del> | -        | <b> </b>                                     |
|   | <del> </del>                                     | 3            | -        |                                              |          |                                              | -              |              | $\vdash$     | -                                                |                 |   |          | 53       |          |   |          | -            |       | _        |              | $\vdash$     | _        | {                                            |
|   | <del>                                     </del> | 4            | ┢        | -                                            | $\vdash$ | Н                                            |                |              | ╁─           | -                                                | H               |   |          | 54       |          |   | _        | -            |       |          |              | ┢            |          |                                              |
|   |                                                  | 5            |          | $\vdash$                                     | ⇈        | $\vdash$                                     | -              |              | -            |                                                  | H               |   |          | 55       | Н        |   |          |              |       |          |              | $\vdash$     | -        |                                              |
|   |                                                  | 6            |          | t                                            | Ħ        | $\vdash$                                     |                |              | $\vdash$     |                                                  | Н               |   |          | 56       |          |   |          |              |       |          |              | $\vdash$     | -        |                                              |
|   |                                                  | 7            | ┢        | t                                            | T        |                                              |                | Г            | T            | -                                                | H               |   |          | 57       | -        | _ |          | -            |       |          |              | -            |          |                                              |
|   |                                                  | 8            | Г        | $\vdash$                                     |          | $\vdash$                                     |                |              | $\vdash$     | 1                                                | П               |   |          | 58       |          |   | -        |              |       | _        |              |              | -        |                                              |
|   |                                                  | 9            |          | T                                            | İ        |                                              | $\vdash$       |              |              |                                                  | П               |   |          | 59       |          |   | $\Box$   |              |       |          | -            |              |          |                                              |
|   | <b>—</b>                                         | 10           |          |                                              |          | 1                                            | 1              |              | T            | H                                                | П               |   |          | 60       |          |   | Н        |              |       |          |              | $\vdash$     |          |                                              |
|   |                                                  | 11           |          | Г                                            | T        |                                              |                |              |              |                                                  | $\Box$          |   |          | 61       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 12)          |          | П                                            | Г        |                                              | -              |              | T-           |                                                  | П               |   |          | 62       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | <b>T3</b>    | 1        | Т                                            | $\vdash$ | $\Box$                                       | П              |              | $\vdash$     |                                                  | $\vdash$        |   |          | 63       |          |   |          |              |       |          |              | Г            |          |                                              |
|   |                                                  | 14           |          | Г                                            | Т        | Г                                            | Г              |              | _            |                                                  | П               |   |          | 64       |          | _ |          | _            |       |          |              | Г            |          |                                              |
|   |                                                  | 15           | _        | <u> </u>                                     |          |                                              |                |              |              |                                                  | П               |   |          | 65       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 16           | $\Box$   | $\vdash$                                     |          | Г                                            |                |              |              |                                                  | П               |   |          | 66       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 17           |          |                                              |          | Г                                            |                |              | Γ            |                                                  |                 |   |          | 67       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 12 19        | $\Box$   | П                                            | П        | Г                                            | Γ              |              |              |                                                  |                 |   |          | 68       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | (19)         | <b>5</b> |                                              | Π        |                                              |                |              | Π            |                                                  |                 |   |          | 69       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 20           |          |                                              |          |                                              |                |              |              |                                                  |                 |   |          | 70       |          |   |          | П            |       |          |              |              |          |                                              |
|   |                                                  | 21           |          |                                              | _        |                                              |                |              |              |                                                  |                 |   |          | 71       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 22           |          |                                              |          |                                              |                |              |              |                                                  |                 |   |          | 72       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 23<br>24)    | _        | _                                            |          | L                                            |                |              |              |                                                  |                 |   |          | 73       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 24)          |          |                                              |          |                                              |                |              |              |                                                  |                 |   |          | 74       |          |   |          |              |       |          |              |              |          |                                              |
|   |                                                  | 25           | _        | L                                            | <u> </u> | L                                            | _              |              | L            | L                                                |                 |   |          | 75       |          |   |          |              |       |          |              |              |          | l L                                          |
|   |                                                  | 26           |          |                                              | <u> </u> | _                                            |                | L            |              |                                                  | Ш               |   |          | 76       |          |   |          |              |       |          |              |              |          | l                                            |
|   |                                                  | 27<br>28     | _        | _                                            |          | _                                            |                | <u></u>      | _            |                                                  | Щ               |   |          | 77       |          |   |          |              |       | _        |              |              |          |                                              |
|   |                                                  | 281          | <u> </u> |                                              | <u> </u> |                                              | _              |              | _            |                                                  | Щ               |   |          | 78       |          |   | $\Box$   |              |       |          |              |              |          | ↓                                            |
|   |                                                  | 29           | L        | ļ                                            | <u> </u> | 匚                                            | <u> </u>       |              | _            |                                                  | Ш               |   |          | 79       |          |   | _        |              |       |          |              |              |          |                                              |
|   |                                                  | 30           | <u> </u> | <u> </u>                                     | <u> </u> | <u>_</u>                                     |                | L_           | <u> </u>     |                                                  |                 |   |          | 80       |          |   |          | L            |       |          |              | <u> </u>     | <u> </u> |                                              |
|   |                                                  | 31           | _        | L                                            | <u> </u> | _                                            | <u> </u>       |              | _            |                                                  | <u> </u>        |   |          | 81       | Ш        |   |          |              |       |          | _            |              |          | l                                            |
|   | <u> </u>                                         | 32           | <u> </u> | <u> </u>                                     | _        | <u> </u>                                     | _              |              | _            |                                                  | Ш               |   |          | 82       |          |   |          |              |       |          |              | <u> </u>     | _        | l                                            |
|   |                                                  | <u>(33</u> ) | <u> </u> | <u>                                     </u> | <u> </u> | <u> </u>                                     | <u> </u>       |              |              |                                                  |                 |   |          | 83       |          |   |          | _            |       |          |              |              | <u> </u> | l                                            |
| _ |                                                  | 34           | <u> </u> | ├-                                           | ├-       | <u>                                     </u> | <u> </u>       |              | <u> </u>     | L.                                               | 11              |   |          | 84       | -        |   |          | _            |       | <u> </u> | <u> </u>     | _            | _        | <b>↓                                    </b> |
|   | <u> </u>                                         | (35)         | <u> </u> | <u> </u>                                     | <u> </u> | <u> </u>                                     | <del> </del>   | <u> </u>     | <u> </u>     | <u> </u>                                         | $\square$       |   | <u> </u> | 85       | Щ        |   | <u> </u> | _            |       | _        | <u> </u>     | <u> </u>     | -        | <b> </b>                                     |
|   |                                                  | 36           |          | _                                            | _        | _                                            | <u> </u>       |              |              |                                                  | $\sqcup$        |   |          | 86       | Ш        |   |          | _            |       |          | ļ            | _            |          | <b> </b>                                     |
|   | <u> </u>                                         | 37           |          | <u> </u>                                     |          | <u> </u>                                     |                |              | _            |                                                  | $\vdash$        |   |          | 87       |          |   |          | <u> </u>     |       |          |              |              |          | <b> </b>                                     |
|   | ļ                                                | 38           | <u> </u> | <u> </u>                                     | <u> </u> | ├                                            | <u> </u>       |              |              |                                                  | -               |   |          | 88       | -        |   |          | <u> </u> _   |       | _        | _            |              |          | <b>I                                    </b> |
|   |                                                  | 39           | <u> </u> | <u> </u>                                     |          | ⊢                                            | <del> </del>   | _            | ⊢            | -                                                |                 |   |          | 89       |          |   | <u> </u> | ⊢            |       | <u> </u> | -            |              |          | <b>∤</b>                                     |
|   |                                                  | 40           | _        | -                                            | ⊢        | <del> </del>                                 |                | $\vdash$     | <del> </del> |                                                  | $\vdash$        |   |          | 90       | Н        |   | _        | <u> </u>     |       | -        | -            | -            | _        | <b>i</b>                                     |
|   |                                                  | 41           | <u> </u> | ⊢                                            | -        | $\vdash$                                     | ┝              | <u> </u>     | ⊢            |                                                  | $\vdash$        |   |          | 91       | -        | _ |          | <u> </u>     |       | _        |              | _            | -        | ▎├                                           |
|   |                                                  | 42           |          | ├                                            | ╁        | $\vdash$                                     | $\vdash$       |              |              | -                                                | $\vdash \vdash$ |   | <u> </u> | 92<br>93 | $\vdash$ |   |          | <del>-</del> |       | <u> </u> | <u> </u>     | $\vdash$     | -        | <b>│                                    </b> |
|   |                                                  | 43           |          |                                              | $\vdash$ | $\vdash$                                     | <del>  -</del> | -            | $\vdash$     | $\vdash$                                         | $\vdash\vdash$  |   |          | 93       | Н        |   | $\vdash$ |              |       | -        |              | -            | $\vdash$ | <b>│                                    </b> |
|   |                                                  | 45           | -        | $\vdash$                                     | -        | -                                            |                | $\vdash$     | $\vdash$     |                                                  | $\vdash \vdash$ |   | <u> </u> | 95       | $\vdash$ |   | H        | $\vdash$     |       | $\vdash$ | <del> </del> | -            | _        |                                              |
|   |                                                  | 46           | —        | $\vdash$                                     | -        |                                              | $\vdash$       | $\vdash$     | -            | $\vdash$                                         | $\vdash \dashv$ |   |          | 96       | $\vdash$ |   |          |              |       | $\vdash$ |              | -            | $\vdash$ | 1 -                                          |
|   | <b></b>                                          | 47           |          | $\vdash$                                     | -        | <del> </del>                                 | 一              | <del> </del> |              | $\vdash$                                         | $\vdash$        |   |          | 97       | H        |   |          |              |       |          |              | <u>-</u>     |          | 1                                            |
|   |                                                  | 48           | _        | 一                                            | $\vdash$ | 1                                            | $\vdash$       | $\vdash$     | $\vdash$     | <del>                                     </del> | $\vdash \vdash$ |   |          | 98       | $\vdash$ |   | $\vdash$ |              |       |          | М            |              |          |                                              |
|   |                                                  | 49           |          | $\vdash$                                     |          | T                                            | $\vdash$       | Г            | $\Box$       | _                                                | П               |   |          | 99       | М        | _ | П        | П            |       | П        |              | $\vdash$     | Г        |                                              |
|   |                                                  | 50           |          |                                              |          |                                              |                |              |              |                                                  |                 |   |          | 100      |          |   |          |              |       |          |              | Ŀ            |          |                                              |
|   |                                                  |              | _        |                                              | _        |                                              |                |              |              |                                                  |                 |   |          |          |          |   |          |              |       |          |              |              |          |                                              |

| CI                                     | Date       |          |                                                  |          |            |          |          |          |            |           |  |  |
|----------------------------------------|------------|----------|--------------------------------------------------|----------|------------|----------|----------|----------|------------|-----------|--|--|
| Final                                  | Original   |          |                                                  | •        |            |          |          |          |            |           |  |  |
|                                        | 101        |          |                                                  |          |            |          |          |          |            |           |  |  |
|                                        | 102        | Ŀ        | _                                                | L        |            |          |          |          |            |           |  |  |
| <u>L</u>                               | 103        |          | L                                                |          |            |          |          |          |            |           |  |  |
|                                        | 104        |          | <u></u>                                          |          |            |          |          |          |            |           |  |  |
|                                        | 105        |          | <u> </u>                                         |          |            |          |          |          |            |           |  |  |
|                                        | 106        |          | <u> </u>                                         |          |            |          |          |          |            |           |  |  |
|                                        | 107        |          | T                                                | Π        |            |          |          |          |            |           |  |  |
|                                        | 108        |          |                                                  |          |            | -        |          |          |            | _         |  |  |
|                                        | 109        |          |                                                  |          |            |          |          |          |            |           |  |  |
|                                        | 110        |          | Г                                                |          |            |          |          |          |            |           |  |  |
|                                        | 111        |          | <del>  -</del>                                   | $\vdash$ |            |          |          |          |            |           |  |  |
|                                        | 112        |          |                                                  | Г        |            |          |          |          |            |           |  |  |
|                                        | 113        |          | _                                                |          | _          |          |          |          | -          |           |  |  |
|                                        | 114        |          | -                                                | $\vdash$ |            |          |          |          |            |           |  |  |
|                                        | 115        |          | <del>                                     </del> | $\vdash$ | _          |          |          |          |            |           |  |  |
| $\vdash$                               | 116        | $\vdash$ | $\vdash$                                         | $\vdash$ |            |          |          |          | -          | H         |  |  |
| <del></del>                            | 117        |          | $\vdash$                                         |          |            | -        |          |          |            |           |  |  |
|                                        | 118        | _        | ┝                                                | -        |            | -        |          | Н        |            |           |  |  |
|                                        | 119        |          |                                                  |          |            |          |          |          |            |           |  |  |
| $\vdash$                               | 119        |          | <del> </del>                                     | ┝        | _          |          |          |          |            | _         |  |  |
|                                        | 120<br>121 |          | ┝                                                | -        |            | _        |          | $\vdash$ | _          | _         |  |  |
| $\vdash$                               | 121        |          |                                                  | <u> </u> | -          | _        |          |          |            |           |  |  |
| <u> </u>                               | 122        | _        | <u> </u>                                         | $\vdash$ | _          | _        |          |          |            |           |  |  |
| ļ                                      | 123<br>124 | _        | -                                                | <u> </u> | _          | -        |          |          | _          |           |  |  |
|                                        | 124        | _        | _                                                | <u> </u> | _          | <u> </u> |          |          | _          | _         |  |  |
|                                        | 125        |          |                                                  |          |            | _        | _        |          |            |           |  |  |
| -                                      | 126        | _        | _                                                | <u> </u> |            | _        | _        |          | _          | _         |  |  |
|                                        | 127        | _        |                                                  |          | -          |          |          |          |            |           |  |  |
|                                        | 128<br>129 | <u> </u> |                                                  |          | -          |          |          |          | _          |           |  |  |
|                                        | 129        |          |                                                  | <u> </u> | _          | <u> </u> | <u> </u> | _        | _          | _         |  |  |
|                                        | 130        |          | <u> </u>                                         | <u> </u> | <u> </u> _ | <u> </u> | <u> </u> | _        | <u> </u>   | _         |  |  |
|                                        | 131        |          | _                                                | <u> </u> | <u> </u>   | _        | _        | <u> </u> | <u> </u>   |           |  |  |
| <u> </u>                               | 132        |          | <u> </u>                                         |          | <u> </u>   | <u> </u> | _        |          | <u> </u> _ | Ļ         |  |  |
|                                        | 133        |          | _                                                | _        | _          | _        | <u> </u> | _        | Ŀ          |           |  |  |
| <u> </u>                               | 134        | <u> </u> | <u> </u>                                         | <u> </u> |            | <u> </u> | <u> </u> |          | <u> </u> _ |           |  |  |
| J                                      | 135        | <b> </b> | <u> </u>                                         | _        | <u> </u>   | _        |          | <u> </u> | <u> </u>   | ļ         |  |  |
| <u></u>                                | 136        |          | ļ                                                | <u> </u> | <u> </u>   | <u> </u> |          | <u>_</u> | <u> </u>   |           |  |  |
| <u></u>                                | 137        |          | _                                                | <u> </u> | <u> </u>   | _        | <u> </u> | L        | <u> _</u>  | L         |  |  |
| <u></u>                                | 138        |          | <u> </u>                                         |          |            | _        | <u>_</u> | <u> </u> | <u> </u>   | <u> </u>  |  |  |
| L                                      | 139        |          | <u> </u>                                         | _        |            | _        | L_       | <u> </u> |            | <u>L.</u> |  |  |
| $oxed{oxed}$                           | 140        | _        | _                                                | _        | <u> </u>   |          |          |          | L.         |           |  |  |
| <u></u>                                | 141        |          | <u> _</u>                                        | <u> </u> | ļ          | ļ        | _        | <u> </u> | <u> </u>   |           |  |  |
|                                        | 142        | _        | <u> </u>                                         | _        | <u> </u>   | <u> </u> |          | L        | <u> </u>   | <u> </u>  |  |  |
| ļ                                      | 143        | <u> </u> | <u> </u>                                         |          | <u> </u>   | <u> </u> | ┕        | <u>L</u> | _          |           |  |  |
| <u> </u>                               | 144        |          | <u> </u>                                         |          | <u> </u>   | <u> </u> | - :      | ــــٰ    | <u> </u>   | -         |  |  |
|                                        | 145        | <u> </u> | <u> </u>                                         | <u> </u> | <u> </u>   | <u> </u> | _        | <u> </u> | <u> </u>   | نـــا     |  |  |
|                                        | 146        | L        | <u> </u>                                         | _        | _          | <u> </u> | _        | <u> </u> |            | <u> </u>  |  |  |
| <u> </u>                               | 147        |          | <u> </u>                                         | _        | ļ          | <u> </u> | $\vdash$ | <u> </u> | -          | Ŀ         |  |  |
| <u> </u>                               | 148        | $\vdash$ | <u> </u>                                         | _        | <u> </u>   | $\vdash$ | Ш        | <u> </u> |            |           |  |  |
| $\vdash$                               | 149        | $\vdash$ | <del> </del>                                     | ــــ     |            | <u> </u> | <b> </b> | -        | -          | -:        |  |  |
| ــــــــــــــــــــــــــــــــــــــ | 150        | L        | L                                                | Ŀ        | L          |          |          | ــــا    |            |           |  |  |